Claims

1. An apparatus, comprising:

a first antenna coupled to a first receiver; and

a second antenna coupled to a second receiver and having a radiation pattern different than a radiation pattern of the first antenna.

2. The apparatus of claim 1, wherein the first antenna is an omni-directional antenna having a non-directive radiation pattern and wherein the second antenna is a directive antenna having a directive radiation pattern

3. The apparatus of claim 1, wherein the first antenna is a whip antenna, stub antenna, or dipole antenna.

4. The apparatus of claim 1, wherein the second antenna is a microstrip patch antenna.

5. The apparatus of claim 1, wherein the first receiver comprises a first low noise amplifier (LNA) having an input terminal coupled to the first antenna and wherein the second receiver is separate from the first receiver and comprises a second low noise amplifier (LNA) having an input terminal coupled to the second antenna.

6. The apparatus of claim 1, wherein the first receiver is a direct conversion receiver and wherein the second receiver is a direct conversion receiver.

7. The apparatus of claim 1, further comprising a baseband processor coupled to the first receiver and the second receiver.

8. The apparatus of claim 1, wherein the first antenna receives a first radio frequency (RF) signal and the second antenna receives a second radio frequency (RF) signal that is not correlated to the first signal and further comprising a baseband logic circuit adapted to process the first radio frequency (RF) signal and the second radio frequency (RF) signal to provide interference detection and cancellation .

9. The apparatus of claim 1, wherein the first receiver is adapted to down convert a first signal from the first antenna and wherein the second receiver is adapted to down convert a second signal from the second antenna.

10. A system, comprising:

a wireless wide area network (WWAN) device, comprising:

a first antenna coupled to a first receiver; and

a second antenna coupled to a second receiver and having a radiation pattern different than a radiation pattern of the first antenna.

11. The system of claim 10, wherein the wireless wide area network (WWAN) is a cellular telephone.

12. The system of claim 11, wherein at least a portion of the first antenna is external to a housing of the cellular telephone and wherein the second antenna is internal to the housing of the cellular telephone.

13. The system of claim 10, wherein the first antenna is an omni-directional antenna having a non-directive radiation pattern and wherein the second antenna is a directive antenna having a directive radiation pattern.

14. A method, comprising:

receiving a first signal from a first antenna at the input terminal of a first receiver; and

receiving a second signal different from the first signal from a second antenna at the input terminal of a second receiver, wherein the radiation pattern of the first antenna is different than the radiation pattern of the second antenna.

15. The method of claim 14, further comprising:

downconverting the first signal to a first baseband signal; and

downconverting the first signal to a second baseband signal.

16. The method of claim 14, wherein receiving a first signal comprises receiving the first signal from an omni-directional antenna having a non-directive radiation pattern.

17. The method of claim 16, wherein receiving the first signal from an omni-directional antenna includes receiving the first signal from a whip antenna.

18. The method of claim 14, wherein receiving a second signal comprises receiving the second signal from a directive antenna having a directive radiation pattern.

19. The method of claim 18, wherein receiving the second signal from a directive antenna comprises receiving the second signal from a microstrip patch antenna.